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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/817,675	03/27/2001	Shunpei Yamazaki	12732-024001	9812

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FISH & RICHARDSON P.C.
1425 K STREET, N.W.
11TH FLOOR
WASHINGTON, DC 20005-3500

EXAMINER

O NEILL, GARY W

ART UNIT

PAPER NUMBER

2873

DATE MAILED: 03/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/817,675

Applicant(s)

YAMAZAKI ET AL.

Examiner

Gary O'Neill

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *Detailed Action*.

DETAILED ACTION

Information Disclosure Statement

1. Receipt is acknowledged of Information Disclosure Statement submitted 1/7/03, which has been considered by the examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5, 6, 9, 10, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Graff et al. (6522067).

Graff et al. discloses as in claim 1, a self-light emitting device (fig.1) comprising: an EL element (120) comprising a first electrode (200), a light emitting layer (210) over the first electrode, and a second electrode (220) over the light emitting layer; a film comprising an inorganic material (170) covering said EL element; and a film comprising an organic material (190) covering said film comprising an inorganic material.

Graff et al. discloses as in claim 2, a self-light emitting device (fig.1) comprising: an EL element (120) comprising a first electrode (200), a light emitting layer (210) over

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the first electrode, and a second electrode (220) over the light emitting layer; a film comprising an inorganic material (170) in contact with (col.3, lines 40-48) said EL element; and a film comprising an organic material (190) in contact with (col.4, lines 21-26) said film comprising an inorganic material.

Graff et al. discloses as in claim 5, a self-light emitting device (fig.1) wherein said film made of an inorganic material comprises silicon nitride (col.2, lines 7-18).

Graff et al. discloses as in claim 6, a self-light emitting device (fig.1) wherein said film made of an inorganic material comprises silicon nitride (col.2, lines 7-18).

Graff et al. discloses as in claim 9, a self-light emitting device (fig.1), wherein said film made of an organic material comprises acrylic resin (col.2, lines 27-35).

Graff et al. discloses as in claim 10, a self-light emitting device (fig.1) wherein said film made of an organic material comprises acrylic resin (col.2, lines 27-35).

Graff et al. discloses as in claim 25, a method of manufacturing (fig.1) a light emitting device comprising: forming an EL element (120) comprising a first electrode (200), a light emitting layer (210) over the first electrode, and a second electrode (220) over the light emitting layer; forming a film comprising an inorganic material (170) covering said EL element; and forming a film comprising an organic material (190) covering said film comprising said inorganic material, wherein said light emitting layer and said film comprising an organic material are formed using the same film deposition method (col.2, lines 43-54, vacuum deposition).

4. Claims 3, 4, 7, 8, 11, 12, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al. (6198217)

Suzuki et al. discloses as in claim 3, a self-light emitting device (fig.1) comprising: an EL element (U) comprising a first electrode (10), a light emitting layer (14) over the first electrode, and a second electrode (18) over the light emitting layer; a film comprising an organic material (20) covering said EL element; and a film comprising an inorganic material (22) covering said film comprising an organic material.

Suzuki et al. discloses as in claim 4, a self-light emitting device (fig.1) comprising: an EL element (U) comprising a first electrode (10), a light emitting layer (14) over the first electrode, and a second electrode (18) over the light emitting layer; a film comprising an organic material (20) in contact with said EL element; and a film comprising an inorganic material (22) in contact with said film comprising an organic material.

Suzuki et al. discloses as in claim 7, a self-light emitting device (fig.1) wherein said film made of an inorganic material comprises silicon nitride (col.7, lines 15-34).

Suzuki et al. discloses as in claim 8, a self-light emitting device (fig.1) wherein said film made of an inorganic material comprises silicon nitride (col.7, lines 15-34).

Suzuki et al. discloses as in claim 11, a self-light emitting device (fig.1) wherein said film made of an organic material comprises acrylic resin (col.6, lines 7-25).

Suzuki et al. discloses as in claim 12, a self-light emitting device (fig.1) wherein said film made of an organic material comprises acrylic resin (col.6, lines 7-25).

Suzuki et al. discloses as in claim 26, a method of manufacturing (fig.1) a light emitting device comprising: forming an EL element (U) comprising a first electrode (10), a light emitting layer (14) over the first electrode, and a second electrode (18) over the light emitting layer; forming a film comprising an organic material (20) covering said EL element; and forming a film comprising an inorganic material (22) covering said film comprising said organic material, wherein said light emitting layer and said film comprising an inorganic are formed using the same film deposition method (col.5, lines 25-30 & col.7, lines 15-29, sputtering).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 13, 14, 17, 19, 21, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graff et al. (6522067) as applied to claims 1 and 2 above, and further in view of Morii et al. (2002/0109456).

Graff et al. discloses the claimed invention as cited above except for incorporating the self-light emitting device in an electric appliance as cited in claims 13 and 14.

Within the same field of endeavor (OLED), Morii et al. discloses (fig.10A) a self-light emitting device (601) which is incorporated in an electric appliance (600).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide within an electric appliance of Morii et al., the self-light emitting device of Graff et al. for the purpose of providing lightweight, environmentally protected displays within portable electric devices.

7. Graff et al. discloses, as in claim 17, a method of manufacturing a self-light emitting device (fig.1) comprising: forming an EL element (120) comprising a first electrode (200), a light emitting layer (210) over the first electrode, and a second electrode (220) over the light emitting layer; forming a film comprising an inorganic material (170) covering said EL element by using a CVD method (col.4, lines 55-65) and forming a film comprising an organic material (190) covering said film comprising said inorganic material.

Graff et al. does not disclose using an ink jet method to form said organic film.

Within the same field of endeavor (OLED), Morii et al. discloses using an ink jet method to form said film (page1, paragraphs 0005-0007).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to use the ink jet method of Morii et al. to form the EL unit film of Graff et al. for the purpose of simplification of film layer formation.

8. Graff et al. discloses as in claim 19, a method of manufacturing a self-light emitting device (fig.1) wherein said EL layer, said cathode, said film made of said organic material, and said film made of said inorganic material are formed using the same film deposition apparatus (col.4, lines 27-65, vacuum deposition).

9. Graff et al. discloses as in claim 21, a method of manufacturing a self-light emitting device wherein said EL layer and said film made of said organic material are formed by an electric field application method (col.4, lines 27-65, electron cyclotron resonance).

10. Graff et al. discloses, as in claim 23, a method of manufacturing a light emitting device (fig.1) comprising: forming an EL element (120) comprising a first electrode (200), a light emitting layer (210) over the first electrode, and a second electrode (220) over the light emitting layer; forming a film comprising an inorganic material (170) covering said EL element by using a CVD method (col.4, lines 55-65); and forming a film comprising an organic material (190) covering said film comprising said inorganic material wherein said light emitting layer, said second electrode, said film comprising an inorganic material, and said film comprising an organic material are formed continuously using the same film deposition apparatus (col.4, lines 27-65).

Graff et al. does not disclose using an ink jet method to form said organic film.

Within the same field of endeavor (OLED), Morii et al. discloses using an ink jet method to form said film (page 1, paragraphs 0005-0007).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to use the ink jet method of Morii et al. to form the EL unit of Graff et al. for the purpose of simplification of film layer formation.

11. Claims 15, 16, 18, 20, 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al. (6198217) as applied to claims 3 and 4 above, and further in view of Morii et al. (2002/0109456).

Suzuki et al. discloses the claimed invention as cited above except for incorporating the self-light emitting device into an electric appliance as cited in claims 15 and 16.

Within the same field of endeavor (OLED), Morii et al. discloses (fig.10A) a self-light emitting device (601) which is incorporated in an electric appliance (600).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to provide within an electric appliance of Morii et al., the self-light emitting device of Suzuki et al. for the purpose of providing lightweight, environmentally protected displays within portable electric devices.

12. Suzuki et al. discloses, as in claim 18, a method of manufacturing a self-light emitting device (fig.1) comprising: forming an EL element (U) comprising a first electrode (10), a light emitting layer (14) over the first electrode, and a second electrode (18) over the light emitting layer; forming a film comprising an organic material (20) covering said EL element, and forming a film comprising an inorganic material (22) covering said film comprising said inorganic material.

Suzuki et al. does not disclose using an ink jet method to form said organic film and using a CVD method to form said inorganic film.

Within the same field of endeavor (OLED), Morii et al. discloses using an ink jet method to form said organic film (page 1, paragraphs 0005-0007) and a CVD method to form said inorganic film (page 3, paragraph 0042).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to use the ink jet and CVD methods of Morii et al. to form the EL unit films of Suzuki et al. for the purpose of simplification of film layer formation.

13. Suzuki et al. discloses as in claim 20, a method of manufacturing a self-light emitting device (fig.1) wherein said EL layer, said cathode, said film made of said organic material, and said film made of said inorganic material are formed using the same film deposition apparatus (col.5, lines 25-30 & col.7, lines 15-29, sputtering).

14. Morii et al. discloses as in claim 22, a method of manufacturing a self-light emitting device wherein said EL layer and said film made of said organic material are formed by an ink jet method (page 1, paragraphs 0005-0007).

15. Suzuki et al. discloses, as in claim 24, a method of manufacturing a light emitting device (fig.1) comprising: forming an EL element (U) comprising a first electrode (10), a light emitting layer (14) over the first electrode, and a second electrode (18) over the light emitting layer; forming a film comprising an organic material (20) covering said EL element; and forming a film comprising an inorganic material (22) covering said film comprising said organic material, wherein said light emitting layer, said second electrode, said film comprising an inorganic material, and said film comprising an organic material are formed continuously using the same film deposition apparatus (col.5, lines 25-30 & col.7, lines 15-29, sputtering).

Suzuki et al. does not disclose using an ink jet method to form said organic film and using a CVD method to form said inorganic film.

Within the same field of endeavor (OLED), Morii et al. discloses using an ink jet method to form said organic film (page 1, paragraphs 0005-0007) and a CVD method to form said inorganic film (page 3, paragraph 0042).

It would have been obvious for one of ordinary skill in the art at the time the invention was made to use the ink jet and CVD methods of Morii et al. to form the EL unit films of Suzuki et al. for the purpose of simplification of film layer formation.

Response to Arguments

16. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new grounds of rejection. Both Graf et al. (6522067) and Suzuki et al. (6198217) disclose self-light emitting devices having the specific arrangements of EL elements, organic and inorganic films, as claimed.

Conclusion

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary O'Neill whose telephone number is 703-306-4828. The examiner can normally be reached on Monday - Thursday, 6:30AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y Epps can be reached on 703-308-4883. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7725 for regular communications and 703-308-7725 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Gary O'Neill
Examiner
Art Unit 2873



EVELYN LESTER
PRIMARY EXAMINER
EVELYN LESTER
PRIMARY EXAMINER

GO
March 10, 2003